



# *Wind Powering America*

## *State Activities*

Steven Palomo

U.S. DOE Denver Regional Office



# DOE Regional Offices





# Goal / Objectives

## **GOAL**

- **Nurture State Wind Markets**

## **OBJECTIVES**

- **Education / Outreach**
- **Partnerships**
- **Assistance**
- **Replication of Successes**





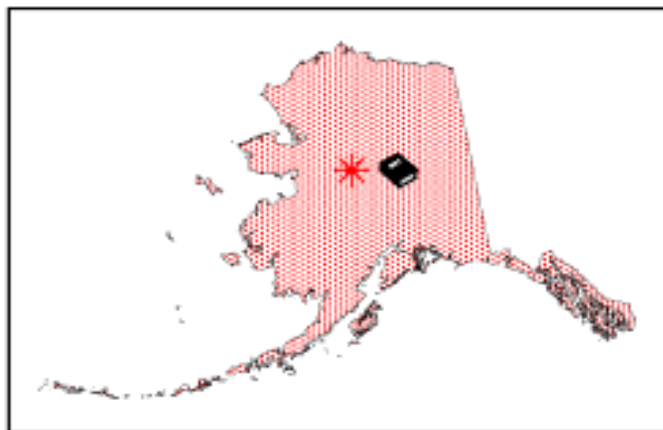
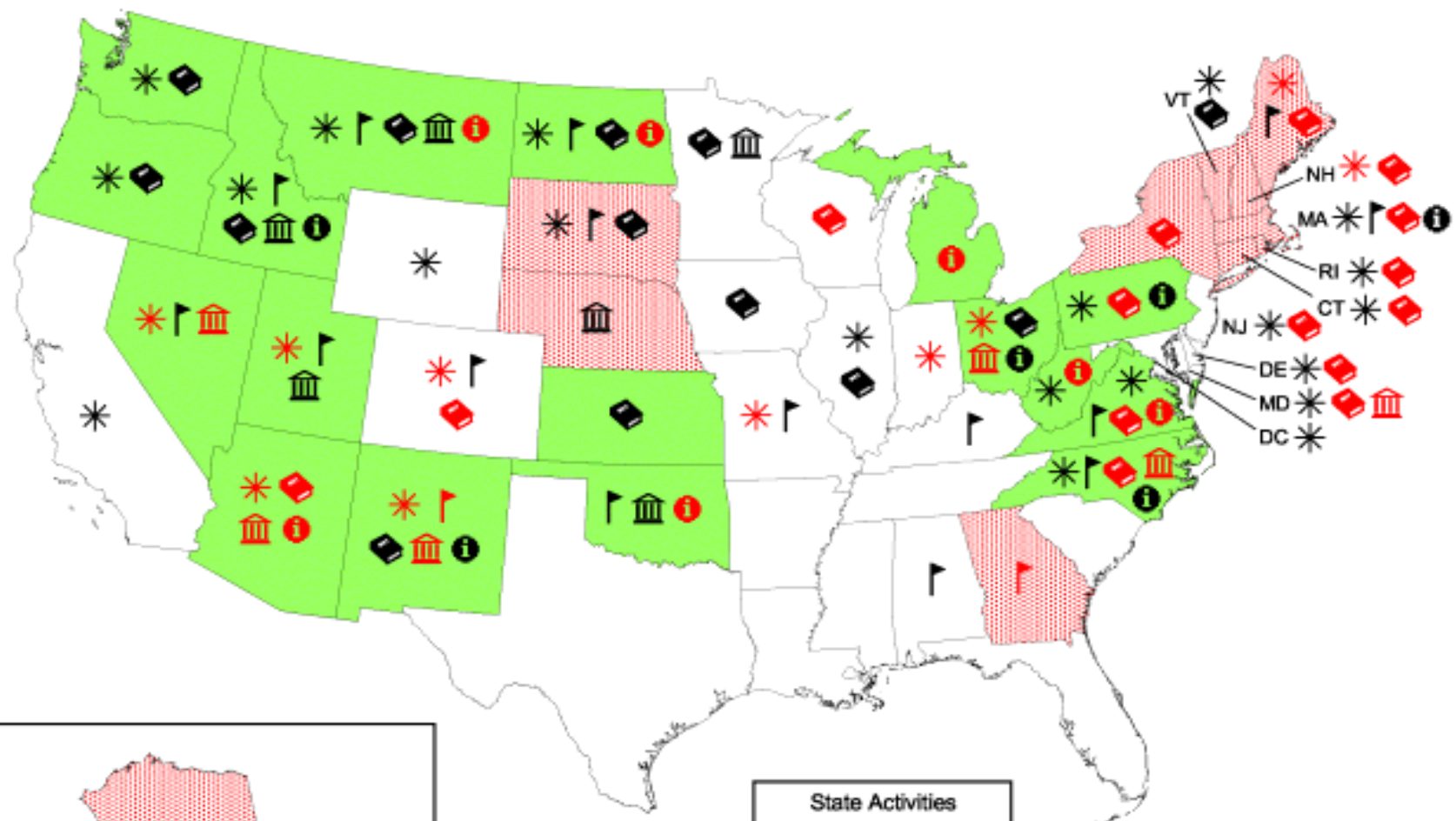
# Approach

- **WPA Core Team**
  - Regional Offices, NREL, SANDIA, INEEL, DOE-HQ, WAPA, Advisors
- **State Working Groups**
  - State Energy Office, State Coalition

# Activities

- **Wind Workshops**
- **Legislator Briefings**
- **Wind Working Groups**
- **Wind Maps**
- **Anemometer Loans**
- **Air Quality SEPs**
- **Small Wind Guidebooks**
- **SBC/RPS Support**
- **Regional WCC**
- **Rural Outreach**

# Wind Powering America State Activities



State Activities	
*	Validated Wind Map
⚑	Anemometer Loan
⚙	Small Wind Guide
🏛	Legislative Briefing
👤	Wind Workshop
■	Completed/Ongoing
■	Planned for FY03

U.S. Department of Energy  
National Renewable Energy Laboratory





U.S. Department of Energy

## Office of Energy Efficiency and Renewable Energy

Bringing you a prosperous future where energy is  
clean, abundant, reliable, and affordable



*Wind Powering America* *Regional Activities* *Native Americans* *Public Power* *Small Wind Turbines*

### News

▶ [Wind Power Pioneer Interview with Glenn Cannon, Waverly Light and Power](#)

▶ [Wind Energy Provisions in 2002 Farm Bill](#)

▶ [Supplemental Environmental Projects \(SEPs\)](#)

▶ [Wind Project Financial Calculator](#)

▶ [Basin Electric Power Wins National Recognition for Wind Power Program](#)

▶ [750-kW Wind Turbine Installed on the Rosebud Reservation](#)

▶ [Dyess Air Force Base is Largest U.S. Wind Purchaser](#)

▶ [Economic Development Benefits of Wind Power \(PDF 281 KB\)](#)

Win...  
incr...  
initi...  
farm...  
mee...



While visiting the Wind Powering America Web site you can find state wind maps, small wind consumer's guides, wind workshops that are going on in your area, and much more. Visit the "Regional Activities" section above to read news articles, press releases, and fact sheets for the area of your interest.

#### Clickable U.S. Regional Map

▶ [Atlanta Region Page](#)

▶ [Boston Region Page](#)

▶ [Chicago Region Page](#)

▶ [Denver Region Page](#)

▶ [Philadelphia Region Page](#)

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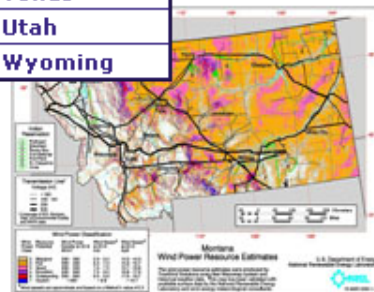
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▶ [Wyoming](#)

Search 

*Search Help* ▶

### I Have A Question...

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▶ [Where is Wind Power?](#)

▶ [How do I get Wind Power?](#)

▶ [I am interested in wind power for my home. Can you help?](#)

▶ [I have a lot of land that I think would be ideal for wind power. Where do I start?](#)

▶ [Are there any grants or incentives available to me?](#)

▶ [I am looking for a wind turbine. Can you help?](#)



# Energy

▶ HOME

## Energy Information:

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## Need More Information?

[Ask an Energy Specialist](#)

## General Information

### [Working Group](#)

The Idaho Wind Working Group is a state. For information on the I

### [Wind Power Development Strategic Plan](#)

The latest version of the draft

### [Local Resources](#)

A list of local people who have questions.

### [Developers](#)

View a list of large scale wind c

### [Small Wind Suppliers](#)

Listing of firms that supply equ

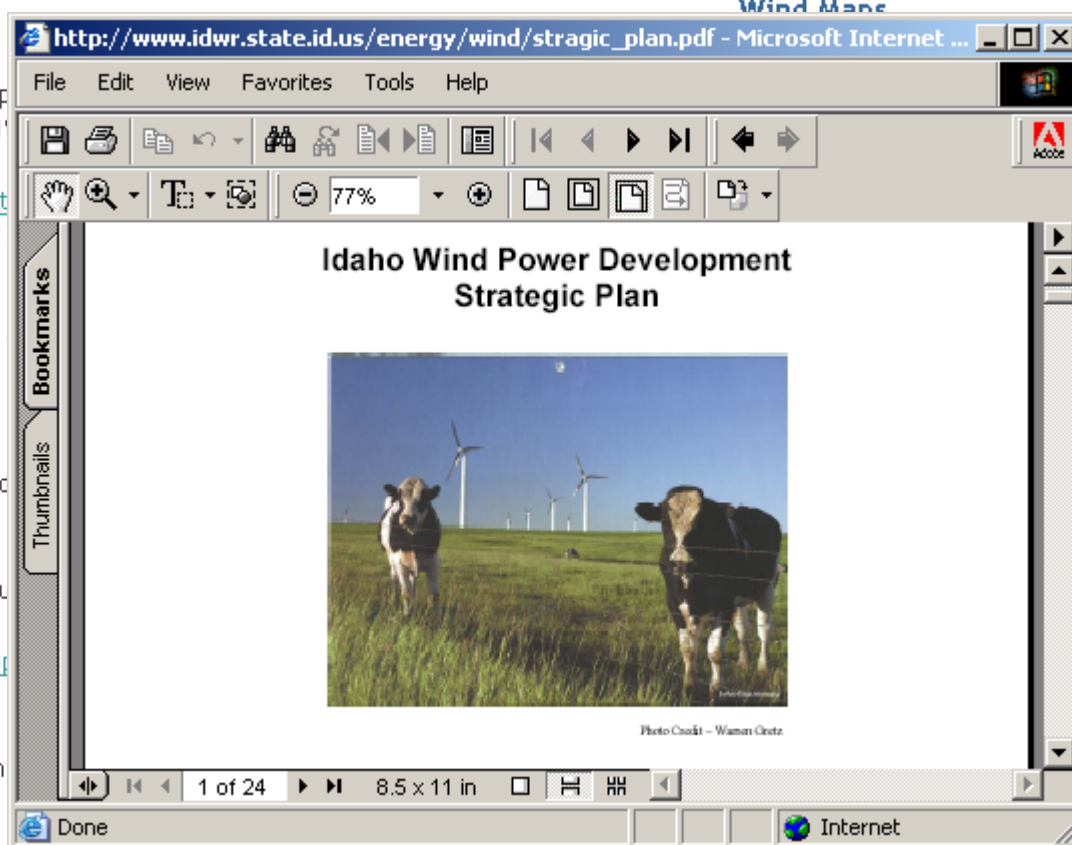
### [Anemometer Loan Program App](#)

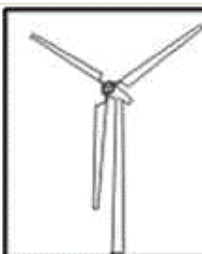
### [Wind Web Sites](#)

Internet web sites with wind in

### [Net Metering Bill](#)

See the metering bill that is currently before the Idaho Legislature.



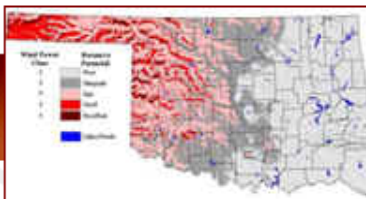
**OWPI**  
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*owpi* Wind  
Power  
InitiativeOK Renewable Energy  
Council Web SiteLatest Issue of  
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Best Experienced In:

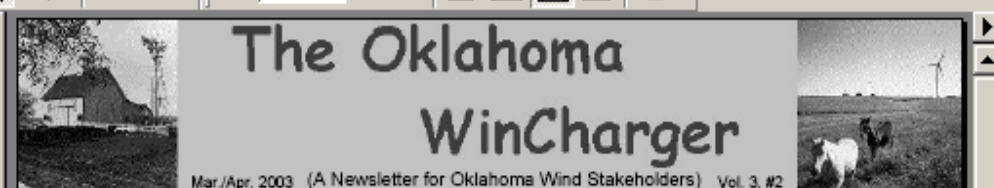


Site Updated:

13 January 2003

**Wind Power & Bioenergy Conference 19-20 June 2003****About OWPI****Educational Outreach****Stakeholder's Information****Contact Us****Policymaker's Information****Events****OK Wind Resource****Links To Wind Sites**





# The Oklahoma WinCharger

Mar./Apr. 2003 (A Newsletter for Oklahoma Wind Stakeholders) Vol. 3, #2

## Oklahoma Wind Power Initiative

A Collaborative Project by the University of Oklahoma and Oklahoma State University based at the

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[www.seic.okstate.edu/owpi/](http://www.seic.okstate.edu/owpi/)

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## WFEC Signs Wind Deal

Western Farmers Electric Cooperative (WFEC) announced on January 24<sup>th</sup> that it had reached an agreement with Blue Canyon Windpower LLC to purchase electricity from their proposed 64-megawatt wind energy project. Blue Canyon is co-owned by Zilkha Renewable Energy of Houston, Texas and Kirmat Corporation of Wichita Falls, Texas.

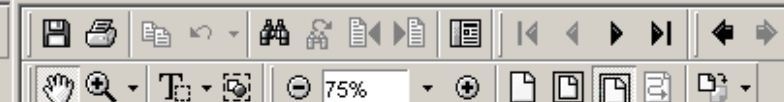
The project will consist of the construction of 39 wind turbines that will be owned and operated by Blue Canyon. All of the electric energy produced by the wind project will be purchased by WFEC. This is the first such agreement to purchase energy produced from an environmentally friendly wind farm in Oklahoma.

The 20-year purchase agreement will provide wind power to WFEC's 19 rural electric cooperatives that serve farms, rural residences, towns, and commercial/industrial customers in approximately two-thirds of rural Oklahoma. The annual electricity production from Blue Canyon will power approximately 20,000 Oklahoma homes.

"We are pleased to be able to integrate a renewable natural resource that provides economic value to our members, while working in partnership with a developer in utilizing and supporting these efforts. This is part of the ongoing effort of WFEC and its member cooperatives to recognize our responsibility to the environment. We support wind energy as an environmentally-friendly way to generate electricity by using renewable resources."



Above: A simulation of what Oklahoma's first wind farm will look like from the intersection of Highways 58 and 10, looking south-southeast. Photo provided courtesy of Zilkha Renewable Energy.



# Kansas Renewable Energy Newsletter

Fall 2002

Kansas Renewable Energy Working Group

[www.KREWG.org](http://www.KREWG.org)

## Large-Scale Wind Power Comes to Kansas

By KYLE K. WETZEL

Kansas became the eighth state in the U.S. to surpass the 100 megawatt threshold of installed wind power when FPL Energy completed construction of its 112-MW wind farm near Montezuma in December. The southwest Kansas facility consists of 170 turbines, each rated at 660 kW, spread out over an area of 12,000 acres, but the turbines and roads actually use fewer than sixty acres. The turbines, mounted on 217-foot-tall towers and featuring rotors which are nearly 160 feet in diameter, are built by the Danish company Vestas, the world leader in wind turbine manufacturing. The wind farm will produce on average enough energy to power 33,000 typical homes. Most of the power from the facility is being purchased by Kansas City-based Aquila.

Public Interest Research Group released a study in February ranking Kansas first among the lower 48 states in renewable wind energy resource. Prior to last fall, however, the only large wind turbines in Kansas were the two 750-kW turbines installed by Westar in 1999 near its Jeffrey Energy Center in St. Mary's. The primary reason is that Kansas does not have a mandate for renewable energy, unlike many other states which have enacted significant wind energy development, including Texas, Iowa, and Minnesota. The State of Kansas does offer developers of renewable energy an exemption from property taxes on the generating equipment.

The scale of the Montezuma project and its proximity to U.S. Highway 56 have made it a new destination for tourists. It has also attracted the attention of a number of political leaders, including Kansas Governor Bill Graves and Congressman Jerry Moran, who has both visited the site. Following the December 17 dedication ceremony, Governor Bill Graves noted that "Wind energy offers exciting opportunities for Kansas. Wind is clean, renewable and in ample supply across all of Kansas. The technology lessens our reliance on fossil fuels, and causes no harm to our land, air or water."

The Montezuma wind farm is also being touted as a good source of new income for rural Kansans, as landowners are reportedly being paid approximately \$350,000 per year for the rights to install the turbines, while the vast majority of the land remains available for farming. This has naturally generated significant excitement throughout the state about the prospects for more wind farms.

## Kansas Renewable Energy Working Group Forms

The Kansas Renewable Energy Working Group was formed at an inaugural meeting held June 12 at the Kansas Corporation Commission headquarters in Topeka. The mission of the Group is to promote the responsible development and use of renewable energy resources in Kansas.

The first meeting, organized by Dr. Kyle Wetzel, of K. Wetzel & Co., and Jim Ploger, Director of State Energy Programs at the Kansas Corporation Commission, and a second July 9 meeting in Topeka were together attended by nearly 100 people representing a broad spectrum of renewable energy interests. These included government agencies, elected officials, public and municipal utilities, electric cooperatives, renewable energy developers, manufacturers, consultants and contractors, university researchers, and environmental and clean energy organizations.

It was decided at the first meeting that KREWG would not lobby on behalf of particular public policies to respect members' diverse perspectives. The group will focus on promoting renewable energy through education and outreach and resolution of technical challenges.

Continued on Page 2



FPL Energy's Gray County Wind Farm Near Montezuma, Kansas

## More Wind Power on the Way

The Gray County Wind Farm is just the beginning of utility-scale wind power development in Kansas. At least a dozen out-of-state developers – and one Kansas-based company – are presently in some stage of developing projects in the state. Clipper Windpower, based in California, is planning a 100 megawatt wind farm in Kiowa County, about 60 miles east of the Montezuma project. SeaWest Windpower, of San Diego, is also examining sites in the western part of the state. FPL Energy is reportedly considering a second project in Kansas which could be as large as 200 megawatts.

Developers are also eyeing the Flint Hills in the eastern part of the state. Zilkha Renewable Energy, a Houston-based company, appears to be furthest along, having requested approval from Butler County for a conditional permit to build a 100-120 megawatt wind farm on 9,000 acres east of Rosalia. Greenlight Energy, of Virginia, is also currently planning a project in Butler County, while several other companies, including Johnson County-based Kansas Windpower, and the German-backed company Prairie Wind Power, are considering projects in other areas of the Flint Hills.

While proponents of renewable energy development in Kansas are excited by the level of activity, development of wind farms in the Flint Hills is controversial. Following an August 20 hearing in El Dorado, the Butler County Planning Commission voted 5-4 to recommend that the County Commission grant Zilkha the permit to

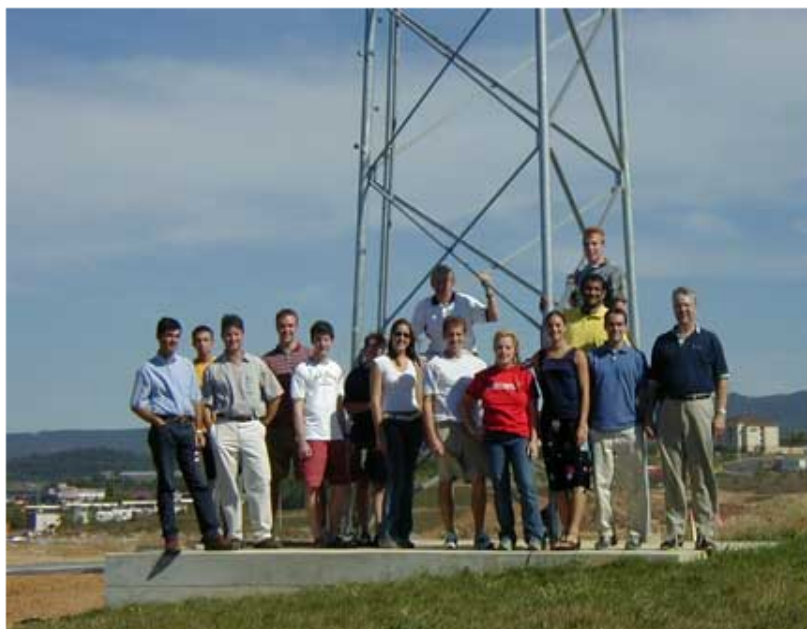
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## Virginia State-Based Anemometer Loan Program

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James Madison University is accepting applications to participate in the State-Based Anemometer Loan Program (SBALP) on a rolling basis. SBALP is designed to spur the development of wind power in the state of Virginia by helping potential wind turbine users quantify their wind resource. To participate in the program please fill out an [application](#) and mail it to the address indicated.



## University of North Dakota

## Select Search Criteria - Microsoft Internet Explorer

## Benedict Wind Monitoring Site

## Site Description

Latitude: N47 53.33' Longitude: W101 6.42' Elevation(ft): 2200

The Benedict monitoring site was installed as part of a statewide study undertaken by seven regional utilities and EPRI to assess the wind resource in the state. The North Dakota Division of Community Services provided funding for this effort. The Benedict monitoring equipment was owned by EPRI and is no longer active.

## Select a Date Range

(Start date and Stop date defaults to the Earliest and Latest dates available)

Start date (mm/dd/yyyy)

Stop date (mm/dd/yyyy)

## Select Fields to be Displayed in the Result Table

- ☐ include [Standard Deviation](#) fields  
☐ include [Data Quality Information](#)

## Wind Speed

sensor height

- ☐ 10SW meters  
☐ 25SW meters  
☐ 40UP meters

## Wind Direction

sensor height

- ☐ 10NE meters  
☐ 40SW meters

Select Units (wind speed and [temperature](#))

- ☐ English ☒ Metric

## ND Wind Sites - Microsoft Internet Explorer

